

CLIMATOLOGICAL DATA FOR NOVEMBER, 1912.

DISTRICT No. 9, COLORADO VALLEY.

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

The pressure distribution in the Colorado Basin and adjacent region during the month was characteristic of that commonly prevailing during November. Storms were few and not at all severe. They did not linger, for for their progress eastward across the Continental Divide was not impeded, as is often the case later in the season. Moreover, in the wake of these low-pressure areas came rapidly rising pressure until there were built up extensive high-pressure areas that remained practically stagnant for days at a time, giving to the district weather even drier than usual in November, clear skies, bright sunshine, and practically normal temperature in the northern and central parts, while temperatures lower than the normal prevailed in the southern part. In Arizona the cool, dry weather was favorable for the harvesting of citrus fruits, but water for stock had become scarce in some localities at the end of the month.

TEMPERATURE.

The mean of the 146 stations reporting was 42.6° , or 0.7° lower than the normal. The mean for November, 1911, was 40.4° . The highest monthly mean was 65.6° at Mohawk Summit, Ariz., and the lowest, 18.8° , at Corona, Colo. The first 6 days were cool, the deficiency being marked in western Colorado. From the 7th to the end of the month the daily mean temperatures were somewhat above the normal, except for a day or two here and there. The highest temperatures occurred principally on the 9th, on which date readings of 80° or higher were observed at a number of stations in Arizona. The lowest temperatures occurred generally during the last 4 days. Zero temperature or lower occurred at 1 station in Arizona, 7 in western Colorado, and 5 in western Wyoming. The highest temperature, 90° , occurred at Sacaton, Ariz., on the 9th, and the lowest, -18° , at Fraser, Colo., on the 27th and 28th. On these dates the lowest temperatures at Corona on the top of the pass, $7\frac{1}{2}$ miles distant and 3,100 feet higher, were -6° and zero, respectively.

Details of temperature are summarized in the following table:

Areas of States in district No. 9.	Temperature.					
	Mean.	Departure from normal.	Highest.	Station.	Lowest.	Station.
Western Wyoming.....	27.6	+1.0	65	Green River.....	-5	Eden.
Western Colorado.....	32.8	+0.2	73	Delta.....	-18	Fraser.
Eastern Utah.....	37.0	-0.4	72	St. George.....	-6	Strawberry Tunnel (east).
Western New Mexico.....	40.3	-2.0	82	Rodeo.....	2	Dulce and Luna.
Arizona.....	51.1	-1.0	90	Sacaton.....	-2	Fort Apache.
Southeastern Nevada.....	48.5	78	Logan.....	15	Caliente.

PRECIPITATION.

The average for the 204 stations reporting was 0.28 inch, or 0.65 inch less than the normal, and the least in 4 years. The average for November, 1911, was 0.49 inch. Precipitation, while not widespread or copious in amount, was most general on the 3d-6th, 11th, and 30th. In only one instance was it as much as 1 inch. The greatest monthly amount was 1.66 inches at Gladstone, Colo., and none occurred at 2 stations in western Colorado, 2 in eastern Utah, 6 in western New Mexico, 41 in Arizona, and 1 in southeastern Nevada. Monthly snowfalls of 10 inches or more occurred at 9 stations in Colorado and 1 in Utah. The greatest amount, 23.6 inches, occurred at Gladstone, Colo. At the end of the month the average depth of snow on the ground on the San Juan and Dolores watersheds was 3 inches, average altitude 7,900 feet; on the Gunnison, 3 inches for 8,900 feet; Grand, 6 inches for 8,700 feet; Yampa and White, 4 inches for 8,000 feet.

The average number of days with 0.01 inch or more precipitation was 2 in western Wyoming, 4 in western Colorado, 2 in eastern Utah, and 1 each in western New Mexico, Arizona, and southeastern Nevada. For the district as a whole the average was 2 days.

The average precipitation and departures from the normal on the different watersheds are given in the following table:

Watersheds.

Green.	Grand.	San Juan.	Little Colorado.	Gila.	Mimbres.	Colorado proper.
Average.	Departure.	Average.	Departure.	Average.	Departure.	Average.
0.47	-0.27	0.65	-0.24	0.52	-0.36	0.07
						-0.97
						0.12
						-0.84
						0.04
						-0.42
						0.16
						-0.67

MISCELLANEOUS.

The average sunshine reported was as follows: Grand Junction, 76, +7 per cent; Durango, 90, +15 per cent; Phoenix, 87, +4 per cent; and Yuma, 90, +2 per cent.

The average relative humidity at Grand Junction was 66; Durango, 61; Phoenix, 46; and Yuma, 42 per cent.

TABLE 1.—Climatological data for November, 1912. District No. 9, Colorado Valley.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.			Total.	Departure from the normal.			Total.	Number of rainy days 0.01 inch or more.								
					Highest.	Date.	Lowest.		Date.	Greatest daily range.	Greatest in 24 hours.		Total snowfall, unmeasured.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.					
<i>Wyoming.</i>																					
Big Piney.....	Uinta.....	28.44	13	60 ^d	19 ^f	— 4 ^d	30	50 ^d	0.50	— 0.05	0.30	5.0	25 ^d	0 ^d	1 ^d	w.	Ira Dodge.				
Daniel.....	do.....	27.8	+ 1.0	53	10	— 4	30	43	0.50	— 0.05	0.14	1.2	2	17	9	4	nw.	J. M. Van Dervort.			
Eden.....	Sweetwater.....	26.2	3	56	9	— 5	27	41	0.30	—	3	14	10	6	6	sw.	Eden Valley Land & Irrigation Co.				
Green River.....	do.....	30.4	7	65	9	0	27	44	0.10	—	0.07	1.2	2	19	10	1	w.	Geo. H. Maxom.			
Pinedale.....	Fremont.....	25.6 ⁱ	6	48 ⁱ	23	— 2 ⁱ	27	40 ⁱ	0.14	—	0.08	2.0	2	11 ⁱ	9 ⁱ	1 ⁱ	nw.	U. S. Forest Service.			
Rambler.....	Carbon.....	9,232	1	—	—	—	—	—	—	—	—	—	—	—	—	—	Do.	Do.			
Willow Creek Cabin.....	Fremont.....	7,500	3	50 ^f	9	— 2 ^f	27	40 ^f	0.54	—	0.52	4.2	2	13 ^f	9 ^f	2 ^f	nw.	Do.			
<i>Colorado.</i>																					
Ashcroft.....	Pitkin.....	9,483	10	27.2	— 1.0	56	9	— 2	1	44	0.37	— 0.74	0.23	6.5	4	—	—	Dan McArthur.			
Breckenridge.....	Summit.....	9,536	23	25.8	— 0.1	52 ^b	9 ^f	— 7 ^b	27	49 ^b	1.00	— 0.62	0.70	8.4	2	20	3	7	Albert S. McCullough.		
Cascade.....	San Juan.....	8,900	5	61 ^j	14	37.6	— 0.7	66	9	13	27	35	0.53	— 0.04	0.77	13.0	3	21	4	San Juan W. & P. Co.	
Cedaredge.....	Delta.....	6,175	6	48 ⁱ	23	— 2 ⁱ	27	40 ⁱ	0.14	—	0.35	0	2	21	5	4	Harry A. Cobbett.				
Chromo.....	Archuleta.....	7,500	6	50 ^f	9	— 2 ^f	27	40 ^f	0.54	—	0.52	4.2	2	13 ^f	9 ^f	2 ^f	Lawrence Nolan.				
Cochetopa.....	Saguache.....	9,088	3	64	9	15	27	30	0.58	—	0.22	4.5	4	11	9	10	Miss Bessie McDonough.				
Colbran.....	Mesa.....	6,000	19	36.8	+ 0.6	9	15	27	30	1.05	+ 0.05	0.65	2.0	6	22	3	5	A. A. Wood.			
Columbine.....	Routt.....	8,766	22	36.4	— 0.8	73	9	8	29	46	—	0.54	0.15	10.0	4	14	3	Mrs. M. A. Caron.			
Columbine Ranch.....	Delta.....	6,925	2	64	9	16	28	38	0.40	—	0.98	5.2	3	20	5	5	George W. Wade.				
Corona.....	Grand.....	11,660	5	18.8	—	38	18	— 6	27	27	—	—	—	—	—	—	—	U. S. Weather Bureau.			
Craig.....	Moffat.....	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Joseph F. Haubrich.			
Crawford (near).....	Montrose.....	6,600	2	35.0	—	61	9	11	27	31	0.32	—	0.09	1.0	4	21	7	2	C. W. Roe.		
Crested Butte.....	Gunnison.....	8,867	2	25.4	—	55	9	4	1	50	0.85	—	0.50	8.0	3	18	5	7	Charles L. Ross.		
Delta.....	Delta.....	4,865	22	36.4	— 0.8	73	9	8	29	46	—	0.54	0.15	10.0	4	14	3	E. M. Getts.			
Durango.....	La Plata.....	6,534	17	37.6	+ 0.4	64	9	16	28	38	0.40	—	0.74	0.15	0.7	3	19	8	3	U. S. Weather Bureau.	
Eureka.....	San Juan.....	10,000	5	5	—	53	9	— 18	27	58	0.38	—	0.80	0.60	9.0	2	24	0	6	San Juan W. & P. Co.	
Fraser.....	Grand.....	8,560	3	19.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	L. D. C. Gaskill.		
Fruita.....	Mesa.....	4,510	13	37.2	— 0.2	67	9	12	29	41	1.06	+ 0.45	0.73	T.	4	21	4	5	J. B. Willsea.		
Glade Park.....	do.....	7,000	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	A. F. Terrill.		
Gladstone.....	San Juan.....	10,400	20	29.4	—	58	9	— 18	27	58	0.38	—	0.19	4.0	3	4	10	16	San Juan W. & P. Co.		
Glenwood Spgs (near).....	Garfield.....	5,823	14	34.6	+ 0.4	66	10	7	26	44	0.42	—	0.55	0.35	0	3	21	3	6	E. A. O'Neil.	
Grand Junction.....	Mesa.....	4,802	21	39.7	— 1.2	61	9	18	28	32	0.46	—	0.09	0.19	0.4	4	20	6	4	U. S. Weather Bureau.	
Grand Lake.....	Grand.....	8,153	4	68 ^a	20	38.3	+ 0.8	68 ^a	9	12 ^a	29	46 ^a	0.79	— 0.11	0.54	T.	1	25	4	1	Mrs. Belle Kaufman.
Gunnison.....	Garfield.....	5,089	20	38.3	+ 0.8	68 ^a	9	12 ^a	29	46 ^a	0.79	— 0.11	0.66	0.06	0	6	15 ^a	6 ^a	5 ^a	David Evans.	
Hesperus (near).....	La Plata.....	7,610	19	27.4	+ 0.1	59	7 ^f	— 4	28	59	0.06	— 0.57	0.15	0.38	0	2	22	2	6	Clarence Adams.	
Horsefly.....	Routt.....	8,700	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	G. F. Snyder.		
Iron Mountain.....	Montrose.....	10,000	2	29.4	—	58	9	5	27	42	0.18	—	0.18	0.8	1	18	8	4	Lawrence J. Finch.		
Lake City.....	Hinsdale.....	8,686	7	32.6	+ 1.5	63	9	0	27	45	0.93	+ 0.13	0.48	2.0	3	18	3	9	A. G. Wallihan.		
Lay.....	Moffat.....	6,190	6	32.6	+ 2.7	63	9	1	27	45	0.93	+ 0.13	0.48	2.0	3	23	5	7	B. M. Krumpantzyk.		
Mancos.....	Montezuma.....	6,960	13	37.5	+ 0.4	66	9	11	26	43	0.51	— 0.80	0.16	4.5	4	20	5	3	F. E. Morse.		
Marble.....	Gunnison.....	7,951	3	32.0	—	59	10	4	1 ^f	44	0.95	—	0.52	8.0	7	26	2	2	Wm. L. Williams.		
Marshal Pass.....	Saguache.....	10,846	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	T. Baker.		
Meeker (near).....	Rio Blanca.....	6,182	20	33.3	— 0.5	63 ^a	8 ^f	2 ^a	27	44 ^a	0.84	— 0.19	0.30	4.0	5	18	6	6	U. S. Reclamation Service.		
Montrose.....	Pitkin.....	5,811	23	38.6	+ 2.7	70	9	12	28	41	0.06	—	0.06	0	1	23	5	7	Arthur Hanthorn.		
Nast.....	Archuleta.....	7,953	2	28.6	—	55	9	1	27	42	0.35	—	0.18	5.5	3	19	7	4	E. T. Walker.		
Pagosa Springs.....	La Plata.....	7,108	5	32.0	—	66	9	0	27	52	0.31	—	0.17	2.4	2	19	6	5	W. F. Irving.		
Palisades.....	do.....	4,729	1	40.2	—	67	9	16	26 ^f	35	0.44	—	0.38	0	0	21	6	3	Central Colorado Power Co.		
Paonia.....	Delta.....	5,694	17	39.4	— 0.4	68	9	13	27	36	1.05	+ 0.25	0.65	0	4	17	10	3	San Juan W. & P. Co.		
Pitkin.....	Gunnison.....	9,500	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Mrs. Maggie Cammann.		
Pyramid.....	Rio Blanca.....	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	E. E. Egry.		
Rangely.....	do.....	5,050	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	J. H. McGuire.		
Redcliff.....	Earl.....	8,695	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Dorothea Greiner.		
Redvale.....	Montrose.....	36.8	—	66	9	12	28	35	0.67	— 0.07	0.48	10.4	3	16	7	7	6	Dr. E. S. C. Foster.			
Rico.....	Dolores.....	8,824	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Clinton B. Smith.		
Rifle.....	Garfield.....	5,437	—	65	9	11	27	38	0.70	—	0.59	0.1	3	23	1	6	7	Herman Eiche.			
River Portal.....	Montrose.....	6,570	6	35.6	—	69 ^b	9	13 ^b	28	40 ^b	0.35	—	0.24	0.5	3	20 ^b	5 ^b	7	U. S. Reclamation Service.		
Sapinero (near).....	Gunnison.....	8,125	9	28.6	—	55	9	6	28	40	0.71	—	0.55	5.6	5	18	9	3	W. F. Irving.		
Shoshone.....	Garfield.....	6,110	2	36.2	—	61	9	13	28 ^f	34	0.68	—	0.45	3.0	5	18	9	3	Central Colorado Power Co.		
Silverton (near).....	San Juan.....	9,400	5	26.4	—	54	18	— 2 ^a	1	50 ^a	1.02	—	0.72	13.0	5	19	7	4	San Juan W. & P. Co.		
Spruce Lodge.....	Grand.....	9,600	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	H. J. Wills.		
Steamboat Springs.....	Routt.....	6,683	9	30.6	—	63	9	5	29	30	1.10	—	0.42	15.1	4	20	3	7	Herbert B. Gee.		
Tacoma.....	La Plata.....	7,300	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	San Juan W. & P. Co.		
Telluride.....	San Miguel.....	8,756	31.8	—	60	9	1	1	52	0.76	—	0.56	9.1	5	23	1	6	e.	Wm. T. March.		
Terminal Dam.....	La Plata.....	8,300	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	San Juan W. & P. Co.		
Yampa (near).....	Routt.....	8,000	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Percy A. Hughes.		
<i>Utah.</i>																					
Aneth.....	San Juan.....	4,8																			

TABLE 1.—Climatological data for November, 1912. District No. 9—Continued.

Stations.	Counties.	Elevation, feet	Length of record, years	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.				Observers.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.			
Utah—Continued.																					
New Harmony.	Washington.	5,200	2								0.50	0.30	2						Geo. F. Prince.		
Orderville.	Kane.	6,660	2								0.39	0.14	4						F. A. Porter.		
Pine Valley.	Washington.	6,000	1								0.50	0.48	5.8	2	11	14	5	s.	Mason Gardner.		
Price.	Carbon.	5,557	1																R. H. Thompson.		
Ranch.	Kane.	6,700	9	38.4	62	71	16	28	40	0.61		0.42		4	24	2	4	w.	J. W. Seaman.		
San Rafael.	Emery.	4,250																	W. C. Foy.		
St. George.	Washington.	2,880	25	46.6	- 0.8	72	9	20	28	42	0.21	- 0.30	0.20	2	20	5	5		A. B. Ballantyne.		
Scofield.	Carbon.	7,625	2	29.0		55	23	- 4	1	46	0.35		0.17	5.0	3	24	0	6	s.	B. Newren.	
Springdale.	Washington.	3,500	4																Hattie Wood.		
Strawberry Tunnel—east.	Utah.	7,500	4	22.4		55	9	- 6	1	48	1.32		0.50	12.0	5	18	5	7		U. S. Reclamation Service.	
Teasdale.	Wayne.	7,000	2	34.4		63	25	14	27	44	0.23		0.20	2.0	2	20	4	6	w.	Henry Cullum.	
Thompsons.	Grand.	5,150	1	39.6		63	9	18	29	30	0.54		0.28	1.0	3	21	6	3	sw.	A. M. Starmont.	
Tropic.	Garfield.	7,000	15	39.0	+ 1.5	66	13	15	28	48	0.02	- 1.01	0.02	0.2	1	17 ^a	3 ^a	3 ^a	nw.	E. P. Bolton.	
Trout Creek Ranger.	Uinta.	9,200	1																Forest supervisor.		
Vernal.	Emery.	5,050	15	33.1	- 1.8	62	9	8	29	39	0.18	- 0.56	0.09	1.0	2	25	3	2		S. P. Trim.	
Victor.	Uinta.	5,250																	F. F. Noyes.		
White Rocks.	Woodside.	6,200																	C. F. Keil.		
Woodside.	Emery.	4,645	1	36.8		60	8 ^b	13	29	37	0.25		0.17	1.0	3	22	1	7	n.	D. P. Adams.	
New Mexico.																					
Alma.	Socorro.	5,500	16	42.4	- 3.4	76	7	10	28 ^c	57	0.00	- 1.08	0.00	0	0	19	10	1	s.	Max A. Balke.	
Aragon.	do.	5,390	5			71	7	6	24 ^c	57	0.08		1.0	1	18	11	1	sw.	John R. Milligan.		
Aztec.	San Juan.	5,590	12								T.	- 0.43	T.	0	0	21	8	1	sw.	Dr. T. J. West.	
Berger's Ranch.	McKinley.	8,000	37.2			71 ^d	28	12 ^d	22 ^d	58 ^d	0.03		0.03	1.0	1	21	7	2	w.	Herman Berger.	
Blackrock.	do.	6,500	3	33.4		59	4	15	21 ^c	36	0.08		0.04	1.6	4	24	0	6	e.	Patrick Des Gorges.	
Bloomfield.	San Juan.	5,500	19	38.6	- 0.6	72	10	10	28	47	0.25	- 0.27	0.12	0.4	4	21	6	3	sw.	Fred Le Clerc.	
Cambray.	Luna.	4,215	13																Agent So. Pac. R. R.		
Cliff.	Grant.	4,470	12	41.8	- 3.2	80	9	5	27	65	0.00	- 0.88	0.00	0	0	20	8	2		W. C. Belden.	
Columbus.	Luna.	4,054	3			72	10	22	23 ^c		1.37		0.73	0	3	22	1	7	se.	Agent E. P. & S. W. R. R.	
Deming.	do.	4,333	35	44.6		71	9	12	26	50	0.00	- 0.51	0.00	0	0	30	0	0	w.	Agent So. Pac. R. R.	
Dulce.	Rio Arriba.	6,756	15	31.9	- 1.2	64	9	2	28	50	0.90	+ 0.36	0.90	7.0	1	21	8	1	sw.	Wm. R. Bevier.	
Fort Bayard.	Grant.	6,152	37	44.9	- 1.5	71	9 ^b	22	19 ^c	37	0.01	- 0.64	0.01	0	0	1	26	1	3	w.	U. S. General Hospital.
Fruitland.	San Juan.	4,800	18	38.2	- 1.0	70	10	12	27	44	T.	- 0.31	T.	0	0	23	6	1	sw.	Cyril J. Collyer.	
Gage.	Luna.	4,486	12	40.3		75	1 ^b	20	19	49	0.00	- 0.30	0.00	0	0	26	0	4	w.	Agent So. Pac. R. R.	
Gila Planting Station.	Grant.	6,475	1	44.4		71	8 ^b	20	28	36	T.		T.	0	0	26	1	3	sw.	U. S. Forest Service.	
G. O. S. Ranch.	do.	8,000	36.9			72	10	6	13 ^c	56	T.		T.	0	0	20	8	2	w.	Victor Culberson.	
Hachita.	do.	4,504	3			74	9	19	28		0.08		0.08	0	0	1	26	0	4	w.	Agent E. P. & S. W. R. R.
Haynes.	Rio Arriba.	6,600	1																Dr. John R. Haynes.		
Hermanes.	Luna.	4,451	3								1.31		0.81	0	3	26	0	4	w.	Agent E. P. & S. W. R. R.	
Lordsburg.	Grant.	4,245	29	47.6	- 2.8	78	7	19	23 ^c	53	0.18	- 0.31	0.18	0	0	21	7	2	e.	J. H. McClure.	
Luna.	do.	7,300	7	35.1		66	11	2	22	51	0.57		4.5	1	18	12	0	0		Charles B. Martin.	
Mimbres.	Grant.	5,007	7								0.00		0.00	0	0	25	3	2		Charles Dennis.	
Pinos Altos (near).	do.	7,253	1								T.		T.	0	0	24	6	0	w.	O. L. Scott.	
Pratt.	Greenlee.	6,000	1								0.00		0.00	0	0	20	0	0		Agent E. P. & S. W. R. R.	
Putnam.	do.	4,415	3								0.28		0.18	0	0	2	17	8	5	w.	C. F. Spader.
Red Rock.	San Juan.	6,200	37.6			72	9	9	24 ^c	52	0.00		0.00	0	0	25	2	3	w.	Robt. H. Woods.	
Rodeo.	Grant.	4,150	7			82	9	22	24 ^c		0.28		0.10	0	0	4	22	4	4		Agent E. P. & S. W. R. R.
Silver City.	do.	4,118	3			73	9	16	28	42	T.		T.	0	0	26	1	3	n.	E. M. Brumback.	
Arizona.																					
Allaires Ranch.	Cochise.	4,184	16								0.09	- 0.72	0.09	0	1	23	3	4	w.	Thomas Allaire.	
Alpine.	Apache.	8,500	2	37.0							0.60		3.0	1	23	5	2	s.	U. S. Forest Service.		
Ashfork.	Yavapai.	5,229	1								T.		T.	0	0	27	2	2		Do.	
Aztec.	Yuma.	492	14	62.6	- 0.9	88	11	35	24	45	0.00	- 0.86	0.00	0	0	27	0	3		Agent So. Pac. Ry.	
Benson.	Cochise.	3,523	31	51.6	- 3.6	84	7 ^b	24	20	52	0.00	- 0.34	0.00	0	0	24	0	6	w.	Bisbee High School.	
Bisbee.	do.	5,500	20	51.0	- 1.1	76	10	32	28	39	0.22	- 0.45	0.22	0	1	22	2	6		Mrs. Mary A. Jones.	
Blue.	Greenlee.	6,000	1								0.00		0.00	0	0	29	0	1	s.	A. H. Jelley.	
Bonita.	Graham.	4,916	39								T.	- 0.69	T.	0	0	20	8	2		Frank Pinkley.	
Bowie.	Cochise.	3,756	35	50.4	- 2.2	83	9 ^b	26	23	46	0.10	- 0.54	0.10	0	1	19	7	4	se.	F. V. N. Dana.	
Buckeye.	Maricopa.	980	18	55.0	- 0.3	88	9	29	27	50	T.	- 0.87	T.	0	0	27	3	0	e.	Agent So. Pac. Ry.	
Canille.	Santa Cruz.	5,225	2								T.		T.	0	0	18	0	0	sw.	H. E. Kell.	
Casa Grande.	Pinal.	1,396	32								0.00	- 0.55	0.00	0	0	30	0	0		Robt. A. Rodgers.	
Casa Grande Ruins.	do.	4,422	4	55.8		89	9	30	29	49	0.00		0.00	0	0	23	3	4	e.	Agent, So. Pac. Ry.	
Chandler.	Maricopa.	1,217	18	59.4	+ 0.5	85	8	31	25 ^c	47	0.00	- 0.87	0.00	0	0	28	0	2		Frank Pinkley.	
Chin Lee.	Apache.	6,090	3	38.0		72	9	12	28	45	0.26		0.16	0.2	3	12	7	10	n.	Hiram R. Charlson.	
Chlarsons Mill.	Graham.	3,000	7	43.1		64	9 ^b	29	37	27	0.11		0.10	1.0	2	2	15	10	5		Arizona & N. Mex. Ry. Co.
Clifton.	Greenlee.	3,584	22	52.1		76	11	28	15 ^c	36	0.00	- 0.59	0.00	0	0	28	2	0		W. M. Clanton.	
Cline.	Gila.	2,300	13	52.4	- 1.9	79	12	27	27	46	0.00	- 1.67	0.00	0	0	20	9	1	sw.	M. J. Nolan.	
Cochise.	Cochise.	4,219	14	46.8	- 5.3	82	10	18	25 ^c	53	0.00	- 0.72	0.00	0	0	22	6	2	s.	Agent, E. P. & S. W. R. R.	
Columbia.	Yavapai.	1,900	14	61.2	+ 0.5	78	21	45	26	30	0.00	- 1.48	0.00	0	0	28	0	2		Agent, E. P. & S. W. R. R.	
Courtland.	Cochise.	4,543	3								0.12		0.12	0	1	24	5	1		Agent, E. P. & S. W. R. R.	
Dos Cabezas.	do.	5,250	4	45.4		75	8	29	22 ^c	40	0.57		0.57	0	1	22	6	2	e.	Agent Erickson.	
Douglas.	do.	3,930	9	49.7		79	10	24	23 ^c	45	0.17		0.17	0	1	23	7	0	sw.	F. T. Wright, M. D.	
Dudleyville.	Final.	2,204	21	53.8	- 1.9	85	9	29	28	44	T.	- 0.97	T.	0	0	18	7	5	sw.	George F. Cook.	
Fairbank.	Cochise.	3,862	3								T.		T.	0	0	20	3	7		Agent, E. P. & S. W. R. R.	
Flagstaff.	Coconino.	6,907	20	36.9	+ 2.3	61	8 ^b	14	25	47	0.13	- 1.27	0.06	0.8	3	22	2	6	e.	U. S. Weather Bureau.	
Flagstaff (1).	do.	7,500	4	35.4		63	9	9	49		0.26		0.15	1.0	2	2	8	2	sw.	U. S. Forest Service.	
Florence.	Final.	1,504	13								0.00	- 0.66	0.00	0	0	23	0	7	w.	Agent, Arizona Eastern R. R.	
Fort Apache.	Navajo.	5,200	42	42.4	- 2.5	76	9 ^b	2	22	70	0.02	- 1.12	0.02	0	1	28	0	2	ne.	Post Surgeon, U. S. Army.	
Fort Huachuca.	Cochise.	5,100	27	53.6	- 1.0	89	16	30	16	59</td											

TABLE 1.—Climatological data for November, 1912. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Arizona—Continued.																				
Keams Canyon.....	Navajo.....	6,600	7								0.00	- 0.78	0.00	0	27	0	3	s.	Fred E. Bertram.	
Kingman.....	Mohave.....	3,326	11	53.2	+ 0.1	78	9	30	29	40	0.07	- 1.09	0.07	1.5	1	21	0	3	sw.	Agent, A., T. & S. F. Ry.
Lakeside.....	Navajo.....	6,500	15	39.0		68	9	13	14	47	T.		T.	0	0	20	1	9		Prof. Joseph Peterson.
Lewis Springs.....	Cochise.....	4,029	3								0.25		0.20	2						Agent, E. P. & S. W. R. R.
Lowell Observatory.....	Cocoonino.....	7,180	1								0.04		0.02	0	2	21	6	3	se.	Vesto M. Slipher.
McNeal.....	Cochise.....	4,150	2																	Miles McNeal.
Maricopa.....	Pinal.....	1,186	37	57.6	- 1.7	88	8	29	25	49	0.00	- 0.61	0.00	0	0	28	2	0	w.	Agent, So. Pac. Ry.
Moccasin.....	Mohave.....	4,500	1	44.5		71	9	19	22	42	0.39		0.16	0	4	25	2	3	s.	R. A. Ward.
Mohawk Summit.....	Yuma.....	538	11	65.6	- 0.9	89	7	40	24	42	0.00	- 0.25	0.00	0	0	23	5	2	w.	Agent, So. Pac. Ry.
Naco.....	Cochise.....	4,579	3																	Agent, E. P. & S. W. R. R.
Natural Bridge.....	Gila.....	4,900	23								0.40	- 1.53	T.	0	1	18	7	5	sw.	D. G. Goodfellow.
Oracle.....	Pinal.....	4,500	20	53.8	- 0.8	79	9	35	21†	37	0.10	- 1.16	0.10	0	1	18	2	10	e.	J. W. Lawson.
Osborn.....	Cochise.....	4,676	3								0.00		0.00	0	0	25	5	0		Agent, E. P. & S. W. R. R.
Paradise.....	do.....	5,436	6	42.2		77	9†	16	28	50	1.02		0.52	0	2	21	6	3	nw.	J. C. Hancock.
Parker.....	Yuma.....	345	16	56.2	- 4.5	89	10	28	17	57	T.	- 0.58	T.	0	0	25	1	4	sw.	M. A. Israel, M. D.
Payson.....	Gila.....	5,550	4	47.0		80	23	18	28	57	T.		T.	0	0	21	0	9		Mart McDonald.
Phoenix (1).....	Maricopa.....	1,108	18	59.8	+ 1.1	85	9	39	27	38	0.00	- 0.96	0.00	0	0	22	2	6	e.	U. S. Weather Bureau.
Phoenix (2).....	do.....	1,092	23	57.7	+ 0.6	87	9	32	23†	47†	0.00	- 0.81	0.00	0	0	23	6	1	e.	George Acuff.
Pinal Ranch.....	Pinal.....	1,189	4	60.1		83	7	36	26	42	T.		T.	0	0	20	0	10	e.	Salt River Valley Nurseries.
Pinto.....	Apache.....	4,520	18								0.14	- 2.30	0.14	0	1					Iron & Craig.
Prescott.....	Yavapai.....	5,660	8								0.00		0.00	0	0	26	2	2	sw.	Mrs. Celia F. Henning.
Prescott Dry Farm.....	do.....	5,320	46	43.0	- 0.8	73	8	18	13†	46	0.03	- 1.07	0.03	0	1	25	1	4		L. L. Bates.
Quartzsite.....	Yuma.....	800	4	57.4		83	9	32	28	45	0.00		0.00	0	0	20	9	1	nw.	W. E. Scott.
Redrock.....	Pinal.....	1,864	5								0.01		0.01	0	1					A. B. Lee.
Rice.....	Gila.....	2,665	31	50.6	- 2.0	82	10	21	29	50	0.00	- 0.84	0.00	0	0	21	5	4	e.	Arthur Pritchard.
Roosevelt.....	do.....	2,175	7	56.4		75	9	38	28†	30	0.00		0.00	0	0	21	9	0	w.	U. S. Reclamation Service.
Sacaton.....	Pinal.....	1,280	5	58.6		90	9	31	13†	49	0.00		0.00	0	0	19	6	5	sw.	E. W. Hudson.
St. Johns.....	Apache.....	5,650	9	37.8		69	10	8	22	50	0.00		0.00	0	0	19	7	4	sw.	Alex Shreeve.
St. Michaels.....	do.....	6,950	26	37.9	+ 1.9	63	9	12	28	48	T.	- 0.98	T.	0	0	16	11	3	sw.	Rev. A. Weber, O. F. M.
Salome.....	Yuma.....	1,875	5	54.6		82	3	30	27	45	0.00		0.00	0	0	20	5	0	sw.	Mrs. M. B. Swartz.
San Simon.....	Cochise.....	3,609	26								0.25	- 0.09	0.25	0	1					Agent, So. Pac. Ry.
Seligman.....	Yavapai.....	5,219	7	44.4		71	9	19	25†	50	T.		T.	0	0	21	0	9	sw.	Librarian, A., T. & S. F. Ry.
Sentinel.....	Maricopa.....	685	14	60.0	- 2.9	80	1†	40	10†	40	0.00	- 0.42	0.00	0	0	22	2	6	sw.	Agent, So. Pac. Ry.
Silverbell.....	Pima.....	2,650	7								0.00	- 0.61	0.00	0	0	26	3	1	e.	Imperial Copper Co.
Snowflake.....	Navajo.....	5,644	5	39.9		78	6	10	27	48	T.		T.	0	0	15	3	12	ne.	William J. Flake.
Springerville.....	Apache.....	6,862	2	38.6		70	9	11	27	51	0.00		0.00	0	0	29	1	0	sw.	U. S. Forest Service.
Stupai.....	Cocoonino.....	3,200	4	51.8		73	9	35	27	32	0.19		0.11	0	2	23	1	6	s.	Laura B. Symons.
Tempe.....	Maricopa.....	1,165	8	56.3		83	9	31	28	42	0.00		0.00	0	0	25	5	0	n.	F. H. Simmon.
Thatcher.....	Graham.....	2,800	10	51.6	- 0.7	84	9	23	26	51	T.	- 0.92	T.	0	0	20	9	1	se.	Prof. J. H. Larson.
Tombstone.....	Cochise.....	4,550	16	53.4	- 1.0	83	9	32	11†	35	0.00	- 0.61	0.00	0	0	26	3	1	e.	F. N. Wolcott.
Truxton.....	Mohave.....	3,997	3	55.8		76	8	42	47	28	0.03		0.03	0	1	27	0	3		Truxton Canyon Ind. School.
Tuba.....	Coconino.....	4,500	14	41.4	- 2.0	63	9	19	28	33	0.01	- 0.68	0.01	T.	1	22	6	2	sw.	Ira E. Bell.
Tucson (1).....	Pima.....	2,390	32	57.2	- 0.9	88	10	31	12†	49	0.00	- 0.78	0.00	0	0	16	13	1	e.	University of Arizona.
Tucson (2).....	do.....	2,380	4	55.0		88	9	25	12†	53†	0.00		0.00	0	0	24	5	1	w.	James F. Record.
Vail.....	do.....	2,526	3	56.6		87	9	30	12†	48	T.		T.	0	0	23	2	5	w.	U. S. Coast and Geod. Sur.
Walnut Grove.....	Yavapai.....	3,421	14	56.4		89	30	29	23	57	0.00	- 0.82	0.00	0	0	12	18	0	w.	Agent, So. Pac. Ry.
Wickenburg.....	Maricopa.....	3,649	15								T.	- 1.49	T.	0	0					J. O. Carter.
Willcox.....	Cochise.....	2,072	15								0.00	- 0.56	0.00	0	0	27	3	0	sw.	Agent, S. F., P. & P. Ry.
Williams.....	Coconino.....	4,164	31	50.8	- 1.3	85	2†	34	7†	57	0.00	- 0.48	0.00	0	0	18	3	9	n.	Agent, So. Pac. Ry.
Winslow.....	Navajo.....	6,750	13	44.6	- 3.1	80	13	20	29	51	0.00	- 1.46	0.00	0	0	20	7	3		E. J. Nordyke.
Yuma.....	Yuma.....	141	33	63.2	+ 1.3	86	9	43	25	36	0.00	- 0.32	0.00	0	0	27	1	2	n.	Winslow High School.
Yuma (1).....	do.....	150	5	57.8		87	9	31	15†	50	T.		T.	0	0	27	3	0	n.	U. S. Weather Bureau.
																				C. J. Wood.
Caliente.....	Lincoln.....	4,407	2	43.1		71	10	15	25†	50	0.00		0.00	0	0	28	1	1	ne.	Salt Lake Route.
Logan.....	Clark.....	1,355	5	53.9		78	9	27	29	44	0.10		0.07	0	2	27	3	0	n.	O. W. Jarvis.

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.

** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.

† Also on other dates.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for November, 1912. District No. 9, Colorado Valley.*

TABLE 2.—*Daily precipitation for November, 1912. District No. 9—Continued.*

Stations.	Watershed.	Day of month.																													Total.									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
<i>Utah—Continued.</i>																																								
Ranch.....	Colorado.....		.05	.08																													.42	0.61						
San Rafael.....	Green.....																																		0.21					
St. George.....	Colorado.....			.01																														.11	0.35					
Scofield.....	Green.....				.07	T.	T.																																	
Springdale.....	Colorado.....																																							
Strawberry Tunnel.....	Green.....																																			.33	1.32			
Sunnyside.....	Colorado.....																																							
Teasdale.....	Colorado.....																																				.20	0.22		
Thompsons.....	Green.....																																				.18	0.54		
Tropic.....	Colorado.....																																				.02	0.02		
Troutcreek Ranger.....	Green.....																																							
Vernal.....	do.....																																					.09	0.18	
Victor.....	do.....																																							
White Rocks.....	do.....		.05	T.																																	.03	0.18		
Woodside.....	do.....																																						.03	0.25
<i>New Mexico.</i>																																								
Alma.....	Gila.....																																						0.00	
Aragon.....	do.....																																						.08	
Aztec.....	San Juan.....																																						T.	
Berger's Ranch.....	Little Colorado.....		.03																																			.03		
Blackrock.....	do.....		.01																																			.01		
Bloomfield.....	San Juan.....			.12	.02																																	.05		
Cambray.....	Mimbres.....																																						.30	
Cliff.....	Gila.....																																						.00	
Columbus.....	Mimbres.....																																						.37	
Deming.....																																							.00	
Dulce.....	San Juan.....		.90																																			.08		
Fort Bayard.....	Mimbres.....																																						T.	
Fruitland.....	San Juan.....																																						.01	
Gage.....	Mimbres.....																																						.00	
Gila Planting Stat'n.	Gila.....																																						T.	
G. O. S. Ranch.....	Gila.....																																						T.	
Hachita.....	do.....																																						.08	
Haynes.....	San Juan.....																																						T.	
Hermanes.....	Gila.....																																						.13	
Lordsburg.....	do.....																																						.18	
Luna.....	do.....																																						.57	
Mimbres.....	Mimbres.....																																						.00	
Pinos Altos (near).....	Gila.....																																						T.	
Pratt.....	do.....																																						.28	
Puinam.....	San Juan.....																																						T.	
Redrock.....	Gila.....																																						.03	
Rodeo.....	do.....																																						.28	
Silver City.....	Mimbres.....																																						T.	
<i>Arizona.</i>																																								
Allaires Ranch II.....	Sonora.....																																						T.	
Alpine.....	Gila.....																																						.60	
Astfork.....	Verde.....																																						T.	
Aztec.....	Gila.....																																						.00	
Benson.....	San Pedro.....																																						.00	
Bisbee.....	do.....																																						.22	
Blue.....	Gila.....																																						.00	
Bonita.....	do.....																																						T.	
Bowie.....	do.....																																						.10	
Buckeye II.....	do.....																																						T.	
Canille.....	San Pedro.....																																							

TABLE 2.—*Daily precipitation for November, 1912. District No. 9—Continued.*

* Precipitation included in that of the next measurement.

† Separate dates of falls not recorded.

Precipitation for the 24 hours ending on the morning when it is measured.

T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—Maximum and minimum temperatures at selected stations for November, 1912. District No. 9, Colorado Valley.

Date.	Wyoming.				Colorado.								Utah.								New Mexico.							
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Hite.		Moab.		St. George.		Vernal.		Bloomfield.		Fort Bayard.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1.....	43	16	37	15	46	18	49	26	45	12	42	13	44	10	58	32	58	32	50	26	64	28	44	17	53	23	53	25
2.....	40	14	43	15	50	24	47	28	42	6	49	13	47	8	56	35	46	35	51	28	67	35	40	18	56	27	52	29
3.....	37	14	38	22	39	26	43	34	45	21	41	22	36	17	60	32	58	40	54	42	67	43	44	24	52	30	57	30
4.....	36	20	40	15	42	24	51	33	43	14	46	20	43	27	61	37	54	38	55	32	57	25	49	27	59	33	57	35
5.....	37	21	42	19	45	28	51	34	48	10	47	20	41	19	60	35	60	37	55	36	62	31	49	24	50	29	57	35
6.....	33	22	45	20	50	22	54	31	47	8	46	19	40	5	56	20	62	35	58	27	65	30	46	19	60	21	71	34
7.....	41	23	50	25	57	25	58	32	59	21	58	36	51	16	66	37	62	41	67	30	59	20	56	21	61	25	70	38
8.....	47	20	56	27	58	30	59	35	45	22	63	28	59	24	53	15	68	40	62	32	70	35	57	47	61	25	72	39
9.....	50	22	65	21	64	30	61	32	49	24	63	24	61	19	70	36	63	31	72	33	62	25	65	29	71	39	70	40
10....	53	27	62	24	56	30	57	31	50	26	59	32	59	21	60	18	65	37	53	32	61	28	72	31	70	40	72	31
11....	39	27	41	31	47	30	49	37	54	12	52	34	50	31	50	28	61	40	49	39	63	40	52	34	63	32	61	42
12....	37	28	44	21	51	24	51	32	45	17	43	18	43	19	51	21	61	34	52	28	62	29	47	20	54	36	60	29
13....	41	14	45	17	54	22	54	31	47	7	53	16	50	11	61	20	60	33	52	26	65	27	55	17	59	22	59	28
14....	42	14	50	15	58	26	54	27	48	6	52	18	56	13	54	21	60	33	54	25	63	27	49	17	57	20	60	28
15....	43	13	42	17	56	24	52	27	49	9	46	17	43	14	52	22	61	34	50	26	64	28	44	19	64	23	64	33
16....	45	14	47	15	54	26	57	30	46	7	44	15	51	18	55	20	63	40	57	28	67	32	51	23	57	21	51	35
17....	44	12	48	11	52	24	55	30	49	4	48	12	51	12	52	23	60	35	55	25	69	28	48	16	59	19	46	37
18....	45	13	49	11	54	22	54	27	59	0	50	13	51	9	51	24	60	33	52	24	65	29	47	15	56	17	53	26
19....	42	10	51	12	55	22	49	22	49	-2	53	10	52	8	52	20	59	31	52	22	65	26	45	14	59	13	56	22
20....	40	10	37	19	53	20	56	26	40	0	47	17	45	12	51	19	61	30	55	25	64	34	46	21	55	22	56	26
21....	42	13	40	6	54	25	53	29	47	7	46	10	41	16	53	15	62	39	57	29	66	28	44	15	53	18	52	34
22....	49	8	47	8	52	23	52	27	45	2	47	9	48	8	61	19	60	32	53	23	61	24	46	16	53	15	57	24
23....	48	13	51	11	54	21	53	24	51	0	53	9	52	8	60	18	57	30	52	21	61	23	47	14	55	13	62	27
24....	40	10	48	13	52	24	51	26	48	6	51	16	50	16	60	17	59	34	54	27	67	25	50	18	53	14	59	27
25....	40	17	34	12	53	17	53	22	43	-3	49	9	45	8	63	20	57	27	53	21	63	23	42	14	51	12	66	34
26....	37	9	41	14	55	17	48	19	45	-2	40	2	35	12	65	15	57	26	52	19	62	23	46	14	53	13	66	30
27....	42	-1	39	0	46	16	47	23	42	-1	42	2	40	-2	63	17	55	29	52	20	63	24	38	17	52	14	55	29
28....	38	4	51	4	52	16	46	18	46	-4	53	10	50	-1	60	15	52	27	49	18	60	20	36	13	56	10	56	22
29....	37	0	49	7	54	18	50	18	48	-2	52	8	49	-5	60	14	55	27	49	18	60	21	41	8	58	11	60	28
30....	37	-4	33	8	47	20	39	18	41	-3	52	13	44	16	53	11	51	26	49	20	56	27	31	12	54	22	51	32
Mns.	41.5	14.1	45.5	15.2	52.0	23.1	51.8	27.6	47.2	7.5	49.9 ^a	16.7 ^b	47.6	13.5	56.8	21.3	59.3	33.6	53.7	27.0	63.9	29.3	46.7	19.5	56.2 ^c	21.0 ^d	59.0	30.8

Date.		Arizona.																Logan, Nev.							
		Bisbee.		Flagstaff.		Fort Apache.		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		Tucson.		Yuma.					
1.....		54	37	40	27	61	24	35	20	78	28	73	47	54	25	71	32	78	53	68	37				
2.....		59	41	47	32	60	27	38	20	80	29	75	55	57	35	72	53	72	55	68	45				
3.....		61	41	44	27	68	30	39	22	78	29	68	50	54	27	73	45	73	45	71	54				
4.....		61	40	40	27	60	27	42	26	78	29	70	46	50	30	74	44	74	44	74	67	40			
5.....		58	38	49	22	61	30	46	25	80	29	71	45	53	28	77	47	77	47	77	69	34			
6.....		64	36	57	20	66	23	46	25	85	28	74	43	65	25	75	46	78	34	79	46	70	37		
7.....		75	36	59	24	73	25	44	24	84	32	78	44	69	27	84	38	84	50	75	39				
8.....		75	45	61	30	75	27	42	20	86	34	83	50	73	35	83	44	83	58	76	43				
9.....		73	48	64	26	76	29	44	22	86	35	85	50	72	30	83	26	86	52	78	37				
10....		76	45	56	27	72	29	44	20	89	35	75	53	64	33	84	24	84	46	71	53	68	43		
11....		70	52	44	22	76	35	46	22	71	35	65	48	52	29	73	46	73	44	71	44				
12....		63	36	49	18	72	29	40	20	78	31	74	40	58	20	75	46	75	46	70	33				
13....		64	41	50	17</td																				